-REMARKS / ARGUMENTS-

Claims 1 to 12 and 30 are now in the application. Claims 13 through 29 have been cancelled without prejudice.

Claims 1 to 12 were rejected by the Examiner under 35 U.S.C. 102(b) as being anticipated by GB 493,635, which is alleged to disclose the use of a joist including upper and lower vertically spaced chords interconnected by a succession of tension and compression webs extending therebetween. While the Applicant concedes that how and where a force is applied on the joist assembly will determine whether a member is in compression or in tension, and that accordingly both web members 12 and 13 of GB 493,635 could be considered as one compression or tension member, the Applicant nonetheless submits that the joist of the present invention as disclosed in claim 1 as presently submitted is not taught or suggested by the structure disclosed in GB 493,635. Particularly, the structural member disclosed by GB 493,635 does not comprise a succession of alternating and continuously interengaged tension and compression webs extending between the chords, as taught in claim 1 as presently submitted, wherein each of the compression webs is disposed between and links successive tension webs on either side thereof such that the lower end portion of the compression web presses the lower end portion of a first adjacent tension web against the lower chord and the upper end portion of the same compression web compresses an upper end portion of a second adjacent tension web, on the opposite side of the compression web, against the upper chord. This accordingly provides upper and lower nodes respectively fastened to the upper and lower chords, each side comprising only the interengagement of two adjacent webs at each node. This is not taught or suggested in any form in GB 493,635, which fails to depict or describe any web member, whether being in compression or in tension, which does not directly contact an upper or lower chord, but which extends between web members on either sides thereof and acts to press the web member on a first side into direct contact with an upper chord, and also presses the web member on an opposed side into direct contact with the lower chord. In the present invention, this "pressing" web member is disposed between and links successive tension web members such that their opposed ends are forced into contact with one of the lower and upper chords, which thereby permits reduced loads imposed on the bolts that fasten the nodes to the chords. This is not true of the structure disclosed in GB 493,635.

Accordingly, in view of the above comments and the amended claims as submitted herewith, GB 493,635 clearly does not teach the present invention as disclosed in independent claim 1 of the present application. Therefore the Applicant respectfully submits that claim 1

is not anticipated by GB 493,635, as alleged by the Examiner. Reconsideration in this regard is respectfully anticipated.

While the Applicant concedes that where and how forces applied to the structural assembly determines if a given web member is in compression or in tension, the compression web and the tension web, as disclosed in claim 1 of the present invention, are clearly nonetheless separate elements. In point 2 of the Office Action, the Examiner indicates that member 12 is both a compression web and a tension web. This is clearly not possible, and while either member can be either in tension or in compression, the Examiner is unjustified in alleging that one of the members 12 or 13 could be simultaneously compression and tension members. Irrespective of the forces acting on the assembly as taught in GB 493,635, it remains that a succession of alternating and continuously interengaged tension and compression webs is not taught, and that each of the web members of one type are disposed between successive web members of the other type such that the linking web member of said one type presses the lower end of a first adjacent web member against the lower chord and presses the upper end portion of the opposed adjacent web member against the upper chord.

Accordingly, the Applicant respectfully believes that the claim language as presently amended distinguishes the present invention over GB 493,635. Accordingly, dependent claims 2 to 12 are clearly also not anticipated by GB 493,635, at least in view of their dependence on claim 1. For there to be anticipation under 35 U.S.C. 102(b), the reference must teach every aspect of the claimed invention, either explicitly or impliedly. Any feature not directly taught must be inherently present. The Examiner is not entitled to read the prior art differently than one skilled in the art would. One skilled in the art would not interprete web members 12 and 13, as disclosed in GB 493,635, to be simultaneously tension and compression web members. Regardless, neither of these members interengages with the adjacent web members as disclosed in the claims as presently submitted.

Claims 1 to 5 and 7 to 9 were rejected by the Examiner under 35 U.S.C. 102(b) as being anticipated by GB 888,798. As the Examiner has noted, GB 888,798 does not in fact disclose the use of a joist. The Applicant maintains that it also does not teach every aspect of the present claimed invention, either explicitly or impliedly. More particularly, the Examiner has indicated that elements 9 and 10 are a succession of tension and compression webs, where in fact reference numeral 10 denotes the apex of each brace 9. The braces 9 are fastened to bridging plates 5. While GB 888,798 does show in Figure 5 a first end portion 14 of a brace superimposed over another end portion 12 of an adjacent brace, thereby pressing the end portion 12 against the bridging plate 5, nothing teaches or suggests what arrangement is used at the opposite end of the same brace. Nothing teaches that brace 9, having an end portion 14, in fact presses the end portion 12 of successive adjacent brace members on either side of the

same brace 9, into the legs. Namely, nothing teaches that the structure is arranged such that brace members expected to be in compression act to force those in tension into contact with the upper and lower chords.

Due to the intended use of the ladder structure of GB 888,798, namely as a vertical pole, the specific structure of the two legs 1 is vital to ensure that the structure permits the intended use. Particularly, each leg comprises two longitudinally extending members 2 of L-shaped cross-section spaced apart so that the two sides of the angles extend inwards towards one another, and being linked by bridging plates 5, which extend therebetween. Accordingly, the attachment of the braces 9 to the bridging plates 5 is necessary for the structure to support the vertical loads intended or used as a vertical pole. Accordingly, the braces are not pressed against the legs 1, which the Examiner herself has indicated to correspond to the lower and upper chords of the present invention.

Accordingly, the Applicant contends that claim 1 as presently submitted is not anticipated by GB 888,798, which clearly does not teach or suggest every aspect of the claimed invention, either explicitly or impliedly. Dependent claims 2 to 5 and 7 to 9 are also believed to be patentable over GB 888,798, at least in view of their dependence on independent claim 1. Therefore, reconsideration of the rejection under 35 U.S.C. 102(b) by the Examiner of claims 1 to 5 and 7 to 9 is respectfully requested, in view of the claims as presently submitted and the above comments.

Claim 12 was rejected by the Examiner under 35 U.S.C. 103(a) on the basis that it is made obvious over GB 493,635, further in view of U.S. patent No. 5,003,748 to Carr. Specifically, the Examiner alleges that GB 493,635 discloses the basic claimed joist, except for the use of an eccentric washer, and that Carr teaches that it is known to provide a joist with chords spaced by web members and secured by eccentric washers 20 and 21 as load transferring means.

With respect, although the Applicant does not believe that GB 493,635 discloses the basic claimed joist of the present invention as discussed above, it would be nonetheless clear to one skilled in the art that washers 20 and 21 as described and depicted by Carr are not in fact eccentric washers, as the Examiner alleges. Particularly, referring to Figures 2 and 3 of Carr, washers 20 and 21 are clearly depicted as common round washers, wherein the hole therethrough is clearly located at the geometric center of the washer. An eccentric washer is generally understood by those skilled in the art to comprise a washer wherein the axis defined by the hole in the washer is located elsewhere than at the geometric center of the washer. Accordingly, the washers 20 and 21 as depicted in Carr are clearly not eccentric washers.

Furthermore, in the Examiner's response to the Applicant's previously filed argument, the Examiner has indicated that claim 12 does not require the load transfer member to have a

portion that is eccentric and which bears against the intermediate section, but rather that the claim requires an eccentric washer. While the Applicant agrees, claim 12 is dependent on claim 11, which is dependent on claim 10, which does disclose that the load transferring member has an angularly extending projection configured to bear against the corresponding intermediate section of one of said tension webs. As claim 10 has not been rejected by the Examiner as being obvious over any of the cited art, the Applicant respectfully submits that rejection of claim 12 has been obvious over GB 493,635, in view of U.S. 5,003,748, is accordingly unjustified.

Further, in the marked attachment of Figure 1 of GB 493,635, which the Examiner included with the Official Action, the Examiner has indicated in red what she believed to be a washer, having an eccentric portion, coloured in blue, which bears against the intermediate member I. With respect, the Applicant believes that neither element which the Examiner has marked in red or blue is in fact a washer. Particularly, common washers are clearly visible below the bolt heads. One skilled in the art would clearly understand the elements marked in red by the Examiner to be a U-shaped channel which extends across the lower flange member 11, and within which the plurality of fastening bolts 20 are located. The portion marked in blue by the Examiner is clearly one-vertical sidewall portion of a second U-shaped channel, which is located on the opposite side of the stay member 13. Further, these U-shaped channels act only against the flat end portions of the stay 13, and not against an intermediate section thereof, defined in the present application as extending between lower and upper angularly extending flat end portions.

Claims 13 to 16 were rejected by the Examiner under 35 U.S.C. 103(a) as being unpatentable over GB 493,635, further in view of U.S. 4,621,475 to McClain. Claim 13 was further rejected under 35 U.S.C. 103(a) as being unpatentable over McClain alone. These rejections are now mute in view of the cancellation of claims 13 to 16.

Method claims 17 to 29 were rejected by the Examiner under 35 U.S.C. 103(a) as being unpatentable over GB 493,635 alone. The current cancellation of claims 17 to 29 accordingly also renders this objection mute.

New claim 30, which is dependent on claim 8 as previously on file, has been added to further define that all of said tension webs are parallel to each other and all of said compression webs are also parallel to each other. Support for this new claim is found at least in Figures 1, 2, 3 and 6, as originally filed. For example, as shown in Figure 1, all compression webs 16 are substantially vertical and all parallel to each other, while all inclined tension webs 18 are also all parallel to one another.

The Applicant respectfully believes that all points raised by the Examiner have been diligently addressed. Reconsideration of the objections raised by the Examiner in light of the claims as presently submitted and the above comments is respectfully anticipated.

As the Applicant hopes for a timely resolve to the prosecution of the present application, the Examiner is invited to telephone the undersigned with any questions, comments or suggested amendment which may expedite on allowance of the present application.

Respectfully submitted,

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By:

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Date

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I hereby certify that this paper is being facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.

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